ChungHo Nais Hot and Cold
Water Purifier with Ice

IGUASSU ICE 500

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Purifier with Ice

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User's Manual

* Read instruction manual thoroughly before using product.
* Product appearance, specification, etc. is subject to change without prior notice if necessary for improving product performance.
* Design and color may differ from cover model.

ChungHo Nais Co., Ltd.

Greetings

We greatly appreciate your purchase of the ChungHo Nais Hot, Cold and Ice Purification System, the IGUASSU ICE 500.
IGUASSU ICE 500 A superior water cooler producing clean, pure ice and water through the combination of our water purifier with an integrated ice maker.

Enjoy ice and water produced by ChungHo Nais Hot, Cold and Ice Purification System, the IGUASSU ICE 500.
IGUASSU ICE 500 Designed and manufactured according to standard specification, and is produced with a 95% quality assurance on all integrated components. The system is tested thoroughly on strictquality guidelines including temperature, moisture, shock, dust, vibration, etc. We are sure that the IGUASSU ICE 500's subjection to these various production processes will provide the utmost customer satisfaction in both quality and excellence.

Before installing or using this product, by all means read this instruction manual in detail and after doing so, please save it for future reference.

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1. Product Features

1 Water Purification System Providing an Integrated Ice Making Function

The IGUASSU ICE 500 is designed for both convenience and practicality, as it utilizes a compact ice making system, designed to obtain cold water for the production of ice. With an ice making mechanism featuring an ice tray which utilizes the freezing point method as well as reverse osmotic water purification. (Patent application: No.2005-99663, 2005-365293, 200510127096.9, 11/342,117)

2 24 Hour Natural Water Circulation System (N.W.P.W.)

This function of ChungHo purification systems is designed to allow water to continuously flow for 24 hours within the water purifier by adopting a natural circulation method. This mode, entitle N.W.P.W. applies the natural weight of water pressure in order to always supply clean and fresh water. (Patent: No.105585)

3 Pure Ice Production Utilizing the Freezing Point Method

The Freezing Point Method produces only the purest ice by supplying purified water to the ice making unit. The freezing point principle states that the purest water freezes at 32°F while non-pure water will freeze at a temperature below that.

4 Energy Saving Function

The economically designed IGUASSU ICE 500 delivers purified water to the ice making unit in order to make pure ice while simultaneously sending cooled water to cold water tank. This allows the system to maintain a constant cold water temperature, thus inherently preventing water waste and helping to conserve energy.

5 Automatic Ice Dispenser

Upon pressing the ice dispenser touch sensor button, the system then slowly rotates the ice storage plate via an integrated motor in order to automatically replenish the ice supply within the storage housing.

6 Touch Sensor Application

Breaking away from traditional button applications, the IGUASSU ICE 500 has a built-in touch sensor application. This addition has been integrated into the already stellar system with customer convenience in mind. The easy-to-use sensor application allows for effortless and enjoyable drinking water with ice.

7 Infrared Water Level Detection Sensor

With improved detection accuracy, as compared to existing mechanical detection types, the Infrared OLC Sensor applies an electronic water level sensor that was developed for stable water level detection. The signal is connected to a controller in order to automatically adjust purified water levels. (Patent: No.426182)

8 Lock Function (Ice Cube / Hot Water Locking Function + Hot Water Automatic Selection / Release Function)

Setting the Ice Cube / Hot water locking function using Lock / Hot touch sensor button prevents Ice Cube and Hot Water from being dispensed from the unit.

9 Continuous Water-intake Function

The function of Continuous water-intake can select volume of water intake of each 0.5 liter, 1.0 liter according to number of times that can do ON/OFF and Touch using the continuous water-intake Touch button. If press Push Button after volume of water intake selection, because continuous water-intake of ambient water or cold water is possible, use is very convenient. * Hot water is not available to water-intake continuously.

10 Product Inspection through the USB Pot

We can inspect active state of product connecting our company Engineer's exclusive use PDA to USB Pot that is threaded to product. Because inspected information of product is collected and manage to Server through PDA, we offer Service that become Up-grade still more.

1. Product Features

11 System Display Functions and Safety Reinforcement
The safety features of the product have been enhanced in order to prevent various problems from occurring. The system will inform the user(s) of abnormal occurrences through a flashing display icon and by automatically stopping the ice making function, cold water function, and water purification function when an abnormality in the system is detected.

12 Power Saving Function
Selecting the power saving function during hot water operation activates the light detection sensor which functions in accordance with the levels of light around the water purifier. By activating the power save function, the user will ultimately reduce power consumption at night.

13 Automatic Water Dispensing
This system function is convenient to the user because it enables ambient water, cold water, and hot water to be taken at the press of a button and placed into a container of any kind. Another new development, found in the IGUASSU ICE 500, is the automatic selection of cold water. In many circumstances, cold water is found to be the most desired temperature of water for drinking. The system has a reset function which, shortly after selecting hot or ambient water, will automatically switch the cooler into cold water mode.

14 Separate Water Delivery from a Single Spout
Ambient water, cold water, and hot water come out from a single spout, but independent water hoses are applied so that ambient water, cold water, and hot water are not mixed, improving overall satisfaction in preferred temperature from the first drink.

15 Beep Function
This provides customers a convenient reminder that a system setting has been changed as sounded via beeping (ding-, dingdong-, etc.) and as applied via system touch sensors.

16 Noise Prevention
This reduces system operating noise by applying a dual noise prevention material, utilizing a shock mitigation structure found at ice storage house, etc.

17 Wire Condenser(Natural Convection)
Using natural convection, the system wire condensers are rated to reduce noise and thus provide further convenience for the user.

18 Convenience in Use
Function operations are designed as simply as possible in order to maximize convenience.

19 Beautiful Design
The IGUASSU ICE 500 truly displays sophistication and beauty. This harmonizing design and newly refined look can create a modern look for any location.

20 Adoption of New Coolant
The IGUASSU ICE 500 has adopted an environmentally friendly cooling system in the new R-134a, a coolant that will not add to the problems of ozone layer destruction and global warming.

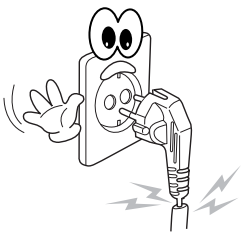
21 Assistance charge function
Among Mobile phone, PDA, MP3 player, Digital camera, electric dictionary, charge voltage can charge because product that is 5V uses USB charge Cable.

- Use USB charge Cable that is quoted certainly. Can need special connection jack or exclusive use charge Cable according to product.
- When charge in case charge target product is badness Touch Button can be fastening state, and if discontinue charge in this case, Touch Button fastening state is defrosted. Also, charge target product can be damaged when charge tension does not guess right.
- Do not pass maximum charge time 30 minutes

2. Safety Precautions

Cautions are divided into 2 categories: **'Warnings'** and **'Precautions.'**

Warning — Associated with the possibility for serious injury or death.

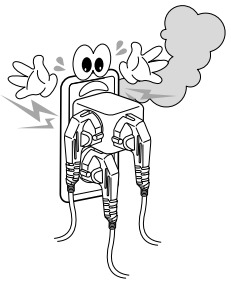


- When the power cord has been damaged, exchange the power cord in order to prevent danger such as electric shock, etc.

  (Do not use damaged or loose wall outlets. There is danger of electric shock or fire.)

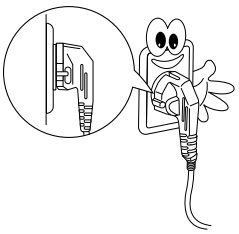
- Do not touch the power plug with wet hands.

  (There is danger of electric shock.)



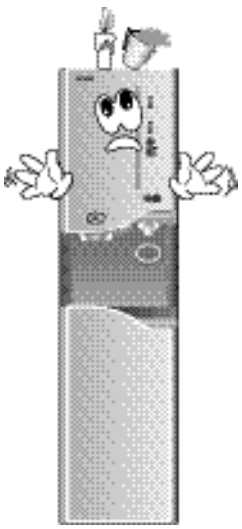
- Do not use multiple electrical appliances in one power outlet simultaneously.

  (This can cause a fire due to abnormal heating in wall outlet.)



- Insert the power plug in a stable position in order to avoid swinging.

  (Unstable connection can be cause of fire.)

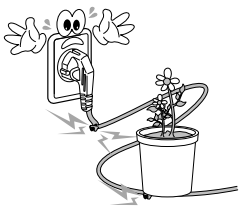


- Do not put candles, lit cigarettes, etc. on the product.
- Do not install the product near a heating appliance.

  (There is danger of fire.)

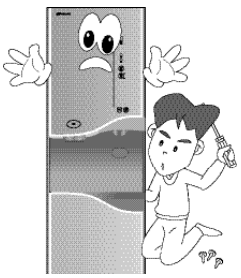
- Do not put a bowl containing water, chemicals, small metals, etc. on the product.

  (If these materials enter the inside of product, there is danger of electric shock or fire.)



- Do not bend the power cord excessively nor allow it to be damaged by being pressed under heavy objects.

  (There is danger of electric shock or fire.)



- If the product is damaged or malfunctioning, do not disassemble, repair, or remodel it on your own.

2. Safety Precautions

Caution — Use in order to avoid injury, property damage, and reduced product performance.

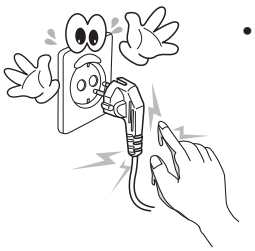
- When wanting to dispense ice, place container close to the ice dispenser hole, touch the ICE touch sensor button, and attempt to keep ice from being scattered on the floor.

  (Take care in order not to allow containers such as cups, etc. to be inserted into the inside of ice dispenser hole.)

- Hot water is very hot, so to avoid burns always use containers such as cups during water dispensing.

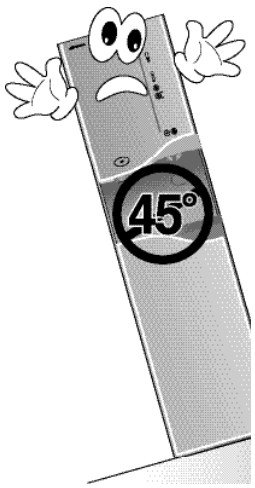
- Do not put foreign materials into the ice dispenser hole nor block the dispenser hole.

  (This can become a cause for system malfunction.)



- Before cleaning the inside of product, always pull out the power plug.

  (There is danger of electric shock or fire.)



- Do not attempt to operate the product if installed at over a 15° incline.

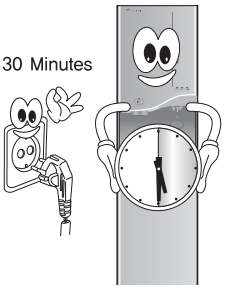
  (This can be the cause of malfunction or unwanted troubles.)

- Do not tilt the product over 45° during transportation.

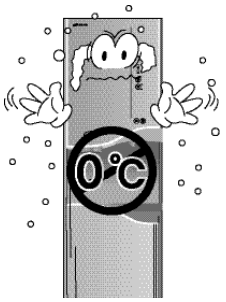
  (Severe inclination can be the cause of reduced performance.)

- Do not install the product in a sloped or unstable position.

  (This can be the cause of reduced performance, system damaging, or overall troubles.)



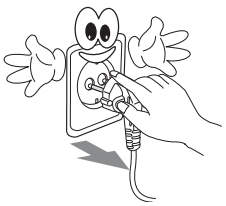
- After transporting the product, do not supply the product with power until a minimum of 30 minutes has passed for stabilization of the product.



- Do not install the product in a place where the surrounding temperature may drop below 32°F.(0°C)

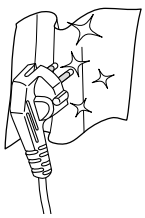
2. Safety Precautions

- This product is for AC 110V/60Hz, 220V/50Hz, 240V/50Hz, and 220V/60Hz only. After installation, arrange the power cord so that it will not be stepped on or stepped over.



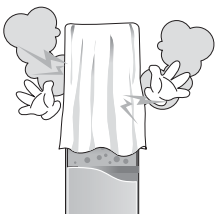
- Do not remove the power cord by pulling it out of the wall. Always remove it by grasping the power plug.

  (Damage to the power cord can cause danger of electric shock or fire.)

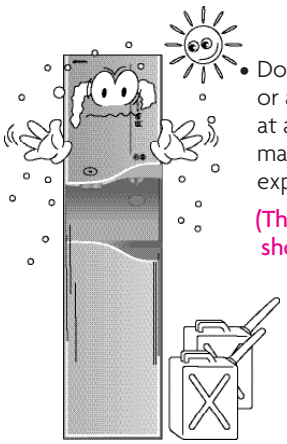


- If dust, water, etc. finds its way onto the power plug, wipe it off well.

  (There is danger of electric shock or fire.)



- Do not put any covering, etc. on the rear and side of product. Blocking ventilation holes may raise inside temperatures allowing for system malfunction or even system stoppage.



- Do not install the product in or around largely damp areas, at a place near flammable materials, or at a place exposed to rain or snow.

  (There is danger of electric shock or fire.)

- Fix hoses so that the brine water or the water discharged from the drainage hose may not splash into surrounding areas.

◈ Other common issues facing the user. ◈

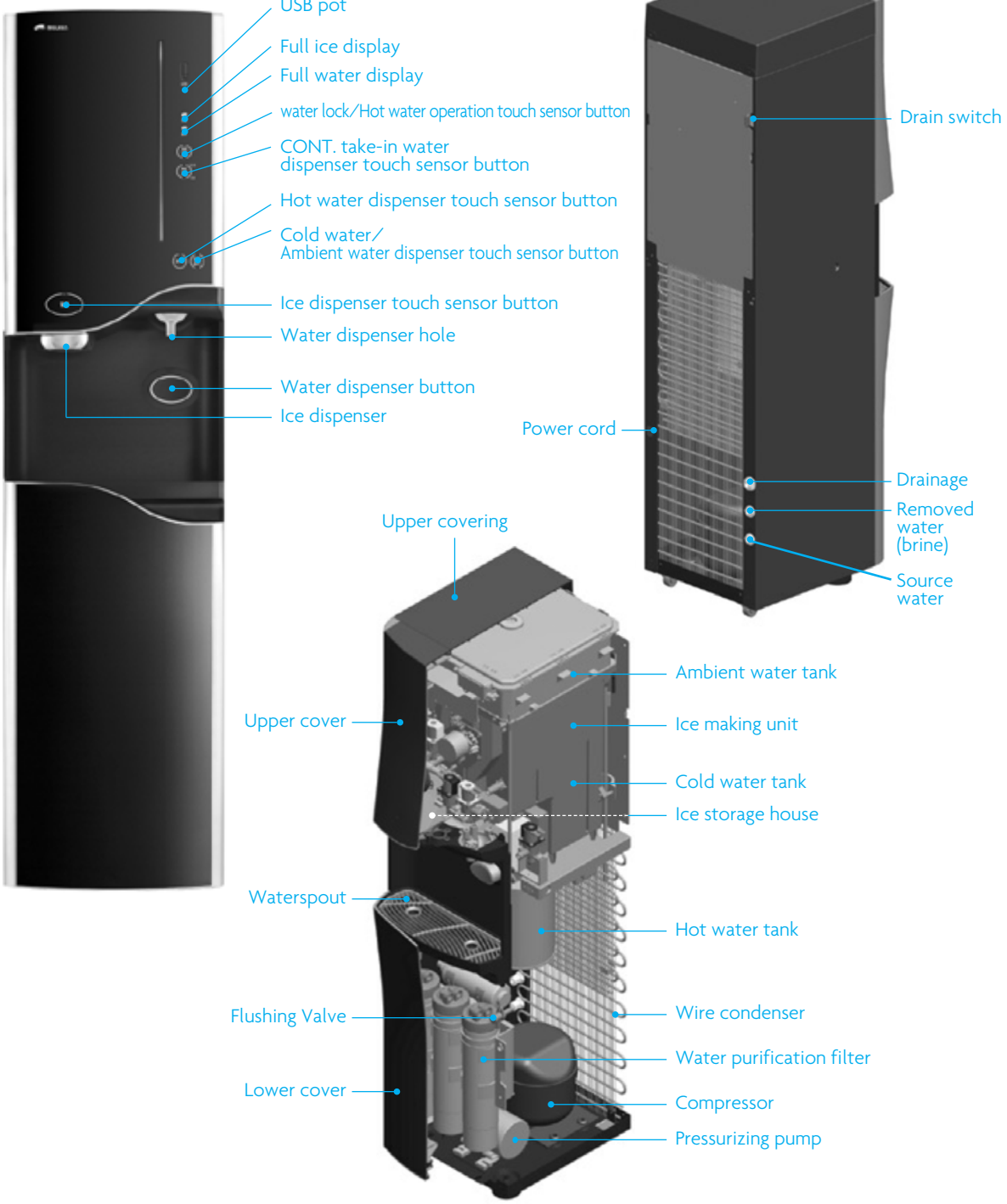
1. During use of product, a murmuring water-flow sound, a rattling ice dropping sound, etc. may occur some times during cold water production process or ice production process.

2. Opaque ice may occasionally be dispensed, but there is no abnormality in product performance or ice quality.

3. TDSs(Total Dissolved Solids) found in ambient water, cold water, and ice may vary from one another. (This is a phenomenon occurs because the ice is created by way of the freezing point method.)

4. After the system power source is interrupted and then again restarted, irregular ice cube sizes may temporarily occur.

3. System Component Identification

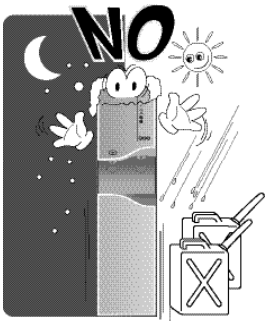


4. Installation Precautions

1 When installing the product, do not install it at the following places.

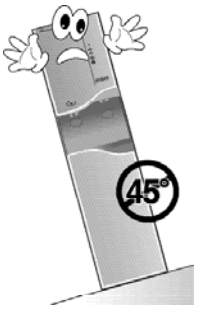
- Near fire • Near flammable material • Wet place
- A place exposed to rain and snow • A place exposed to direct sunshine
- Near chemicals(volatile material, organic solvent, etc.) • Dark place
- A place below 32°F(0°C) or a place with the possibility of dropping below 32°F(0°C).

※ When the product is installed in a dark place, and the power saving function is set, then hot the water system may not operate even during daytime. (Install it at bright place.)



2 When transporting the product, do not tilt it over 45° .

※ Severe tilting can be the cause of reduced performance.



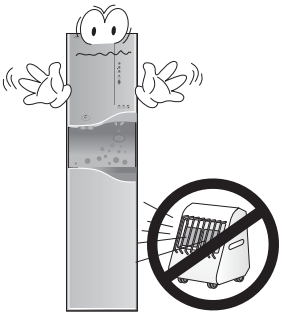
3 Install the product at a place where the surface is level, and after installation, always attempt to adjust the level of the product using a level gauge.

※ Tilting of the product can reduce water purification performance and ice making capability.

4 Leave approximately 8 in(20cm). between the wall, sides and rear surfaces of the product so that ventilation may be smoothly performed for safe operation of product.

※ This can be the cause of reduced performance and complications.

5 Do not install the rear of the product near any heat radiating plates at rear surface.



6 Use the following water quality range.

- Water pressure : 7~120psi(0.5~8.4kgf/cm²) • Water temperature : 39~100°F(4~38°C)
- pH : 5~10 • Hardness : 300ppm or less • Evaporated remains : 500ppm or less
- Water quality : Biologically safe water quality

※ When using another water quality than the above, discuss it with our company.
※ If you do not use water quality within the above range without prior discussion with our company, the product can be excluded from the stated warranty period.

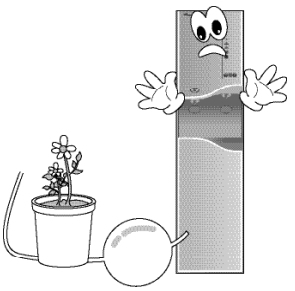
7 Do not connect hot water(over 100°F(38°C) to this product.

※ This can be the cause of trouble and decline in ice making performance.

4. Installation Precautions

8 When connecting tubing hose, take care so that the tubing hose is not be bent or pressed down by heavy objects, etc.

※ If tubing hose is blocked, water does will flow smoothly and can become the source of problems.

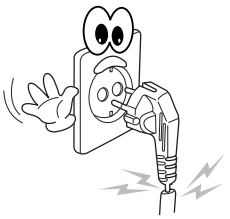


9 Adjust the hose so that the water discharged from the drainage hose may not splash onto the product's surroundings.

※ Brine water, or the water coming out through drainage lines, can easily be applied towards other water related needs, such as in bathroom cleaning, house cleaning, laundering, washing, etc. in order to prevent waste of water.
However, never use the brine water as drinking water or for cooking of food.

10 Raising the brine water and drained water over 1 ft(30cm). above the installation surface, or connecting them over 9.84 ft(3M). away from the water purifier can hinder a smooth drainage process. In order to install the product in a location where the brine water and drained water line are located a distance of over 9.84 ft(3M). from each, the user will inevitably have to install a separate drainage pump.

11 A bad wall outlet or plug may cause an electric shock or fire, so please do not use them.



12 When installing another product(water purifier, dish washer, etc.) at the same location and the water is derived from the same installation source, prepare an independent drain line for each product.

Precautions during a Transfer Installation

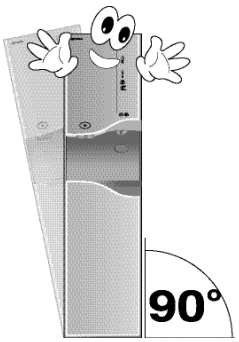
Drain the product by first removing the bottom front cover of the product and then draining both the hot and cold residual tanks completely. This is done by opening the drainage valves located in the middle of the product. Then drain the remaining cold water completely by pressing the water dispenser button with the product tilted forward. Then draw all the ice out by touching the ICE(ice dispenser) touch sensor button. When transporting the product in an inclined position, try to tilt the product backwards at all times.

※ When moving the product in an inclined position with water not completely drained, the water inside the tank may come out while moving the product. This could possibly create unwanted damages to the product and surroundings.

5. Installation Method

- **Our company's technician will perform the installation. You, as the customer should check if the product was properly installed.**

1. Install the product on a level surface.(Change product level using the product leg adjustment and confirm the level surface a level.)



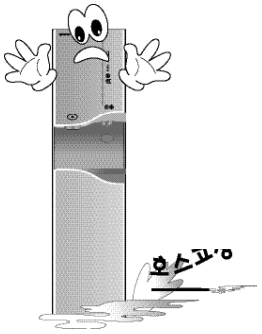
2. Close off the water supply valve as supplied to each household. Then temporarily remove the connector part as provided from your given water source. Then connect the main water line adaptor.

※ If the sealing O-ring at the connection piece is removed or damaged, it can lead to leakage.

3. Connect tubing hose into water source adaptor and then attach to the water inlet on the rear side of product.

4. Connect tubing hose into the removed water(brine) and drained water connection part on the rear side of product and then connect tubing hose into the drainage hole in sink, bathroom, or multi-purpose room, etc.

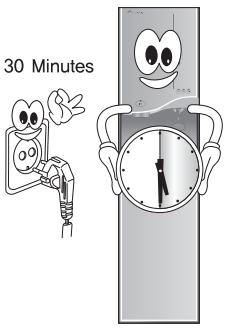
※ Install the removed water(brine) line and drained water line separately.
If drainage does not function properly due to improper installation, then water may flow back toward waterspout and cause an overflow.



5. Adjust the tubing hose so that the discharged water(brine) and tap water tubing hose so that they do not splash into surrounding areas.

6. Open the tap water valve supplied into each household, and place the water source adaptor to the open position.

7. Check to see if water is leaking at each connection part.



8. For stabilization of the cooling system and for safe use of this product, insert the power plug into an AC 110V/60Hz, 220V/50Hz, 240V/50Hz, and 220V/60Hz power outlet after 30 minutes after the installation of the product.

※ This product is for AC 110V/60Hz, 220V/50Hz, 240V/50Hz, and 220V/60Hz only.

9. Check whether water is supplied into the inside of product and whether there is any leakage in or around the tubing connections.

10. Check whether water is supplied into the inside of product and whether there is any leakage in or around the tubing connections.

11. Use after water has flowed into the storage tanks.

6. Usage

6-1. Display and System Function Settings(A)

USB	USB pot	Can do A/S through correct diagnosis because connect exclusive use PDA, and fill up cellular phone etc. (within maximum charge 30 minutes)
ICE FULL	ICE FULL	Lights up when ice storage house is full of ice.(Yellow green)
WATER FULL	WATER FULL	Lights up when storage house is full of ambient water.(Yellow green)
LOCK HOT	HOT LOCK (Hot water locking selection)	Used when setting/releasing the hot water lock function.
	HOT LOCK LED (Hot water locking LED)	Lights up when setting the hot water locking function.(Red)
	HOT LED (Hot water operation display LED)	Lights up when setting hot water operation.(Red)
CONST. 0.5ℓ 1.0ℓ	CONT. take-in water	Use ON/OFF the function of CONT. take-in water.
	CONT. take-in water LED	Light on the LED (Red) when you choose the volume (litter)

6-2. Operation and Water Dispensing Selection(B)

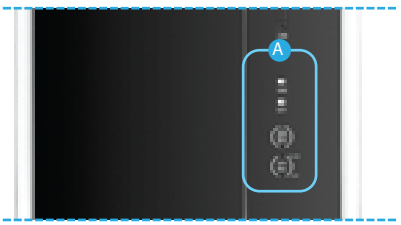
HOT	HOT (Hot water selection)	Used to dispense hot water.
	HOT LED (Hot water selection LED)	Displays that hot water dispense was set.(Red)
COLD AMBI	COLD/AMBI	Used to dispense cold /ambient water
	COLD LED (Cold water selection LED)	Displays that cold water dispense was set.(Blue)
	AMBI LED (Ambient water selection LED)	Displays that ambient water dispense was set.(Yellow green)
	Water Dispensing Button	Used to dispense water into a container such as a cup after selecting the desired water temperature among ambient water, cold water, and hot water.
ICE	ICE (Ice dispenser)	Used to dispense ice.
	ICE LED (Ice dispense LED)	Lights when dispensing ice.(Red)

6-3. Customer Warning Sensor

- A beep sound following aerations of the IGUASSU ICE 500

	Division	BEEP	Remarks/occurrence
1	Power ON	Ding dong dang~	Occurrence one time
2	Touch Button	Ding~	Occurrence one time
3	Lock Function	Ding~ding~ding~	Occurrence one time
4	Water intake Start	Ding~	Occurrence one time
5	Water intake Ending	Dong~	Occurrence one time
6	Con. Water intake Start	Ding dong~	Occurrence one time
7	Con. Water intake Ending	Ding dong~Ding dong~	Occurrence one time
8	Drain/Water Level Sensor Error	Ding~ding~ding~ding~	One second interval
9	Beep sound Setting/Releasing	Ding~ding~ding~ding~ding~	Occurrence one time

6-4. Function Settings and Releasing Methods



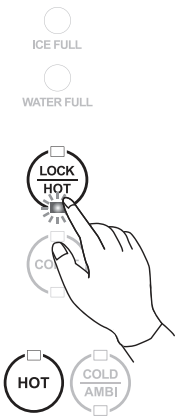
(1) Lock Function (Ice Cube / Hot Water Locking Function + Hot Water Automatic Selection / Release Function) Setting

① Touch LOCK/HOT Touch Button softly for over 3 seconds.
② Lock lamp (red) is turned on and the lock function is set. (setting sound : Ding~ding~ding~)
③ After lock function is set, any function will not operate even though HOT (hot water operation) or HOT(hot water intake selection), ICE(ice cube spout) touch button has been selected.

- LOCK function helps to prevent spout of ice cube and burns by hot water due to user's carelessness.

(2) Lock Function Releasing

① Touch LOCK/HOT Touch Button softly for over 3 seconds.
② Lock lamp (red) is turned off and the lock function is released. (releasing sound : Ding~ding~ding~)
③ If lock function is released, any function will operate even though HOT (hot water operation) or HOT (hot water intake selection), ICE (ice cube spout) touch button has been selected.



(3) HOT(hot water) Operation Setting

Touch LOCK/HOT and HOT button simultaneously to turn on the hot water system.
(Upon setting the HOT operation on, HOT LOCK function will be automatically turned on. please follow 'LOCK function Releasing' as explained as above, in order to use HOT water.)

(4) HOT(hot water) Operation Release

Touch LOCK/HOT and HOT button simultaneously to turn off the hot water system, when the HOT water system is already turned on.

6. Usage

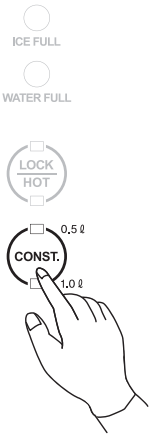
(5) ON of the function of CONT. take-in water

① Do continuous water-intake Touch Button Touch for 2 seconds by function that use clear water, cold water at continuous water-intake time. I select quantity of water intake wanting between 0.5 liter, 1.0 liters if continuous water-intake LED is lighted.(when select relevant quantity of water intake red LED on).

② Effect sound is 'Ding dong ~' if proper move water-intake or cold water water-intake Touch Button presses touch and push button. It becomes continuous water-intake ringing. (Relevant quantity of water-intake LED flicker at continuous water-intake time).

※ After if do not water-intake even if selected Continuous take-in water 10 seconds selection. It is released automatically.

※ Hot water is incomprehensible Continuous take-in water, and Continuous take-in. The water selection amount and actual quantity of water intake can be difference.



(6) OFF of the function of CONT. take-in water

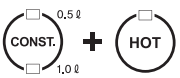
① We do Touch. one of clear water, continuous water-intake among cold water continuous water-intake or proper move water-intake, cold water water-intake Touch Button or Push Button or as effect sound rings 'Ding-dong ~ Ding-dong ~' in case of press Continuous take-in water is released. (Continuous take-in water LED 'OFF')

(7) Releasing(Beep)

① If HOT/CONT.(hot water operation/Continuous take-in water) touch sensor button and HOT(hot water dispenser selection) touch sensor button is simul taneously touched for over 3 seconds, the function is released.

② When beep function is turned on, ding-ding~ding~ding~ding~ is sounded.

③ And, when it is released, HOT LOCK(hot water lock) LED and HOT/CONT. (how water operation/Continuous take-in water) LED will flash 5 times in one second intervals.

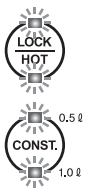


(8) Resetting(Beep)

① If HOT/CONT.(hot water operation/Continuous take-in water) touch sensor button and HOT(hot water dispenser selection) touch sensor button is simul taneously touched for over 3 seconds, beep is reset.

② When beep is turned off, ding-ding~ding~ding~ding~ sound goes off.

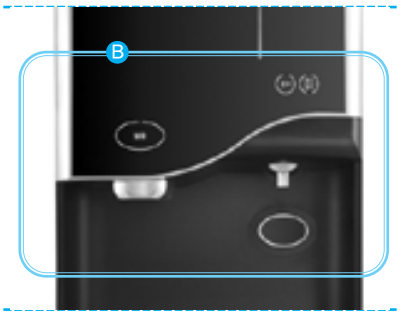
③ And, when it is released, HOT LOCK(hot water lock) LED and HOT/ECONO (how water operation/power saving selection) LED will flash 5 times in one second intervals.



6. Usage

6-5. Ice and Water Dispensing Method

It can be the Spout of Ice Cube and Hot water intake that the lock function is released.
※Lock Function (Ice Cube / Hot Water Locking Function + Hot Water Automatic Selection / Release Function). Setting the Ice Cube / Hot water locking function using Lock / Hot touch sensor button prevents Ice Cube and Hot Water from being dispensed from the unit. Please use it after releasing of LOCK FUNCTION.



(1) Ice Dispensing Mode

If ICE(ice dispense) touch sensor button is pressed, the door of the ice storage house is opened and ice comes out from the dispensing hole.

(2) Hot Water Dispense Mode

If HOT(hot water selection) touch sensor button is selected and the water dispensing button is pressed, hot water comes out.

※If HOT LOCK(hot water lock) is set, then hot water does not come out even though the water dispensing button is pressed.

※If HOT LOCK(hot water lock) function is released, the water in the hot water tank can be taken by selecting HOT(hot water selection) touch sensor button and pressing the water dispensing button.

(3) Cold Water Dispense Mode

If COLD(cold water selection) touch sensor button is selected and water dispensing button is pressed, cold water comes out.

※After early power ON water full LED is lighted up, cold water water-intake selection is available.

(4) Ambient Water Dispense Mode

If AMBI(ambient water selection) touch sensor button is selected and water dispensing button is pressed, ambient water comes out.

※If hot water or ambient water is selected and it is not used for a given time period(Ambient : 10 second, Hot water L 5second) the system will automatically switch into cold water dispense mode. (Default function)

※There is not a separate setting and release method for the use of ambient water/cold water/ice making operation. They operate automatically as designated by the program when the power is supplied.

6-6. Draining the System for Relocation/Installation

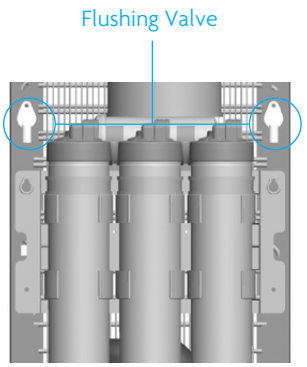
① When Power Plug gets insert, I do drain switch of product back side to do ON.
※If the drainage switch is turned on, water purification and ice production stops

② Take out the ice by pressing the ICE(ice dispense) touch sensor

③ On using Driver after extract Power Plug product whole surface Under Cover lower part It Removes 2 screws and pulls forward pressing Under Cover over downward you segregate.

④ that is located to left side (ambient and hot water drainage) and right side (cold water drainage) after Under Cover separation Opening Flushing Valve Tank internal water perfectly drain.

⑤ Combine Front Cover after lock Flushing Valve and separate raw water, drain water, drain hose etc all.
※If there is no other option but to transport the product in an inclined position, transport the product in a backwards inclined position if at all possible.



6. Usage

6-7. Understanding the Ice Making Process and Operation

The ice making system of the IGUASSU ICE automatically operates according to designed program settings after applying power to the product.

① If power is supplied to the product by inserting the power plug, then ice making automatically operates without any manual setting.

② Upon the initial application of power, if the level of purified water goes above proper operating levels, then all the ice created from the machine will be automatically removed by deicing action.

③ In order to be produced cold water, the compressor and circulation pump must operate properly.
(The cold water production process automatically operates according to designated programming.)

- Cold water operation : This refers to an operation that makes cold water by continuously circulating and supplying water into the cold water tank.
  Water temperature in the cold water tank is automatically checked by the cold water temperature sensor, and if it drops below the set temperature, then the cold water operation will automatically stop.

④ If cold water production is operating properly, the ice making system will produce the ice according to the given water supply.

- Water supply action : This refers to an action to supply about .25G(1ℓ) of cold water every 50 seconds into ice making mechanism in order to make ice.
- Ice making action : This refers to the making of ice by way of an ice tray by supplying cold refrigerant onto the ice tray as it is filled with water.
- Harvest action : This refers to an action to separate the ice created in the ice tray by supplying hot refrigerant onto the tray.

⑤ When the ice storage house is full, the ice detection sensor will automatically stop the process.

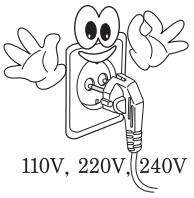
⑥ Cold temperature control is applied to prevent ice cubes from melting by periodically sending cold air into ice storage house.

⑦ If ice in the storage house is not used for long periods of time, it may melt, and during ice dispensing, small ice cubes can come out.
※TDS(Total Dissolved Solids) of ice may increase according to the environment in which the ice is created.

- The lower the surrounding temperatures, the shorter the ice making process will become and the higher the surrounding temperatures, the longer the ice making process will become.
- Do not install or use the product in temperatures below 32℉(0℃) and above 100℉(38℃).

7. Cautions during Use

(1) For safety reasons, insert the power plug into the power outlet 30 minutes after installation.

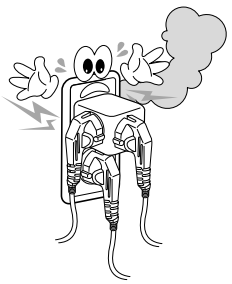


(2) This product is for AC 110V/60Hz, 220V/50Hz, 240V/50Hz, and 220V/60Hz only. Please connect to the proper power source.

(3) Do not connect multiple electric appliances into the same wall outlet. (This can be lead to fire.)

(4) Never move the product while in operation.(This can cause unwanted problems.)

(5) The temperature of the radiator plate on the rear side of product is hot while the product is in operation, so take care not to touch it.

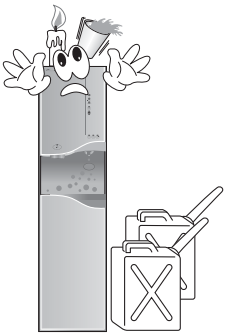


(6) When power is disconnected to the product due to power outage, etc. wait 5 minutes and then attempt to re-connect the product.

(7) When the product is not used for long periods of time.
- Pull the power cord out after closing off the source water.
- Do not touch the power plug with wet hands.(There is danger of electric shock or fire.)

(8) Avoid the use of chemicals around the product(volatile material, inorganic solvent, etc.) and do not place chemicals near the product.

(9) Do not supply water above 100°F(38°C) to the product.

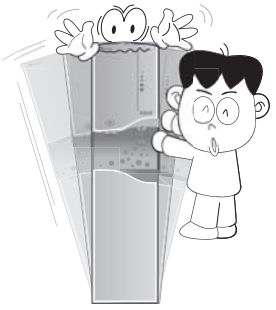


(10) If an abnormal sound, smell, or smoke appears from the product during use, then pull out the power plug immediately, close of the source water at the adaptor valve, and then contact A/S.(There is danger of electric shock or fire.)

(11) When ice is not dispensed upon pressing the ICE(ice dispense) touch sensor button, do not shake the product nor strike the product. (This can cause an immediate reduced product performance.)

(12) When removing ice from the ice dispenser by pressing the ICE(ice dispense) touch sensor button, avoid using a glass cup.(Glass cups can be broken by abrupt temperature change or as the ice cube strikes the glass.)

(13) You can always reuse this quality ice by placing the ice in a separate storage vessel and storing it in the refrigerator/freezer.

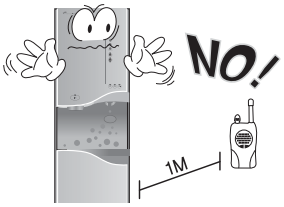


(14) Do not put foreign elements into the waterspout. This can cause blocking of the water dispenser.(Blocking the water dispenser can cause reduced performance and other unwanted consequences.)

(15) If an operation does not function properly, even though the touch sensor button has been applied, broaden the contact area of which the touch sensor button is pressed.(using your thumb, etc.)

(16) Occasionally ice will not come out because it is caught in ice dispenser hole. In such a case, remove the ice caught in dispenser hole with your(finger, etc.) and then attempt again.

(17) Occasionally, ice will not come out smoothly because it can be stuck each other if you do not use ice for many hours. In such a case, please touch ICE(ice dispensing) touch button twice or three times for 2~3 seconds.



(18) Please use the product 3.28 ft(1M) away from wireless machinery and tools. (If using the product 3.28 ft(1M) close to wireless machinery and tools, may cause mis-operation.)

8. Filters and Replacement

8-1. Filter Functions

Sediment filter

The Sediment filter removes particles and pollutants that are over 5㎛ from the water. This helps to extend the life of the membrane filter.

Pre-carbon filter

The Pre-Carbon filter, made from high temperature processed carbon, collects chlorine, THMs and organic chemical contaminants through an absorption process. This protects the membrane and helps it function properly.

Membrane filter

The Membrane filter removes dissolved pollutants(with a molecular weight over 200, such as heavy metals, bacteria and chemical contaminants) via micro-filtration through a semi-permeable membrane(0.0001㎛ pore.)

Post-carbon filter

The Post-Carbon filter removes dissolved gases and odors to ensure a natural tasting water.

8-2. Filter Exchange Time

Filter kind	Exchange time
Sediment filter	About 6 months
Pre-carbon filter	12 months
Membrane filter	24 months
Post-carbon filter	18 months

※ Filter exchange time is not included within the standard warranty period. The ideal filter exchange time is based on the use of 5.28G(20ℓ) per day.

※ Exchange time of filters can differ depending on location, water quality, tap water temperature, quantity of water used, and seasons(summer, winter).

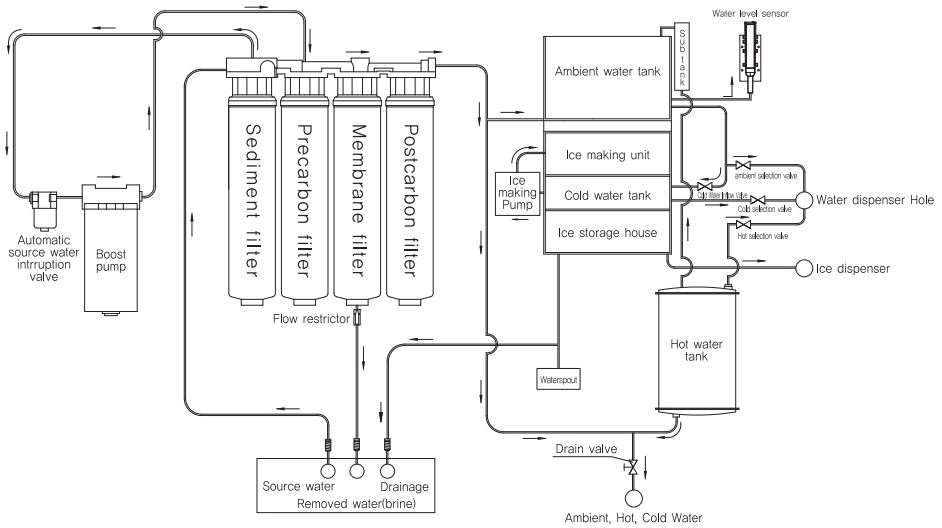
※ You can only expect to drink clean water by exchanging filters according to the recommended filter exchange schedule.

9. Product Specification

Product name		IGUASSU ICE 500	
Model name		CHP-5110S	
Rated voltage		AC 110V/60Hz, 220V/50Hz, 240V/50Hz, and 220V/60Hz	
External dimension		295W X 384D X 1170H(mm)	
Consumed power	Rated consumed power	500W(hot water + ice making)	
	Hot water	500W	
	Cold water / Ice making	105W	
Storage house	Ambient water	1.58G(6.0ℓ)	
	Hot water/Cold water	.39G/.55G(1.5ℓ/2.1ℓ)	
	Ice	2.6 lbs.(1.2kg)	
Monthly consumed power quantity		48.5kWh/month	
Weather class		N class(90℉ ±1℉(32℃ ±1℃))	
Ice making capability (This can differ depending on surounding tempera-ture.)	Surrounding temperature	68℉(20℃)	86℉(30℃)
	Required time	13minutes ±1minute/ one time ice making	17minutes ±1minute/ one time ice making
	Daily ice making quantity (60Hz/50Hz)	17 lbs(8kg)/day(60Hz)	13 lbs(6kg)/day(60Hz)
	Daily maximum ice making quantity (60Hz/50Hz)	17 lbs(8kg)/day(60Hz) (when surrounding temperature is 68℉(20℃)	
	Ice size	13g ±1gX12ea/one time ice making (1ea cold water tank submerging)	
Heat radiation type		WIRE CONDENSER TYPE(natural convection)	
Cold water temperature regulation		THERMISTOR	
Hot water temperature regulation		Bimetal(automatic return)	
Overheating prevention system		Bimetal(manual return)	
Safety system		Overheating prevention system, water level detecting system	
Cold water tank water level adjust-		Capacitance sensor	
ment Refrigerant/Refrigerant weight		R-134a(85g ±1g)	
Product weight		78.2 lbs.(35.5kg)	
Power cord		2.5m	
IP class		IPX1	

10. Flow Diagram and Power Consumption

10-1. Flow Diagram



10-2. Power Consumption

Division		Operation Condition	Power Consumption/ month(±10%)
HOT : ON LOCK :OFF		Hot/Ice making/Cold	48.5 kWh/month
HOT : OFF LOCK :OFF		Ice making/Cold	24.5 kWh/month

※Reference. 1) The above information is measured in terms of real-using environmental condition.(Standard : A family of four)
-Non-operation Condition: The conditions of ice making, cold and hot are under preparation.
-Real-using environmental condition(1 person 3 meals per day)
: Iced water Cold water(150cc) + Ice cube 8pcs(100g) 3 times, Coffee & Tea Hot water(150cc) 2 times

2) It may happen small deviation(±10%)

※If you want to cut down power consumption, as the chart above, you had better turn off Hot water function. The halt of cold and ice making functions has not noticeable results compared to hot water function. Therefore, this product doesn't have option to cancel Cold and Ice making functions.

11. Wait a minute! Check this before requesting A/S.

Symptoms	Checking items	Counter measures	Remarks
When the display is not turned on.	Is the power plug of the product inserted properly?	Insert the power plug into an AC 110V/60Hz, 220V/50Hz, 240V/50Hz, or 220V/60Hz power outlet.	
When hot water dispensing does not work even though the touch sensor button has been selected	Is the HOT LOCK (hot water lock) function set?	Release the HOT LOCK (hot water lock) function.	See usage. (Page 13)
When purified water does not come out.	Does tap water come out?	Separate the power plug from the power outlet, and if tap water comes out, then connect the power.	See precautions during installation and installation method. (Page 9,10,11)
When tepid water comes out in place of cold water.	Why is there no ambient water in the ambient water tank?	Wait until the ambient water is purified and the water tank begins the hot water operation. (about 25%)	See usage. (Page 15,16)
	Is the system creating ice?	Wait until ice making cycle (about 10 minutes) ends.	
When hot water does not come out or when tepid water comes out.	Is the HOT (hot water operation) display LED turned off?	Set to the hot water operation by pressing the HOT/ECONO (hot water operation/power saving selection) touch sensor button.	See usage. (Page 13,14,15)
	Is the HOT (hot water operation) display LED turned on?	Wait until the temperature of the hot water tank rises. (about 30 minutes after the HOT (hot water operation) display LED is turned on.)	
	Check the ambient water tank.	Wait until the water level of ambient water tank rises more than 25%(Operating Point for Hot and Cold water)	

11. Wait a minute! Check this before requesting A/S.

Symptoms	Checking items	Counter measures	Remarks
When irregular ice comes out, is it caused by a power outage?	Is the first ice after a power outage?	After a power outage, the system performs a deicing action as a safety precaution. Therefore, irregular ice may come out.	
When the water from the waterspout is not well drained.	Open the waterspout cover and then check if there are any foreign elements in the hole where the water is drained.	Remove foreign elements from waterspout holes.	See Installation Precautions. (Page 10, 11)
	Is the drainage line, found on the rear side of product, bent or blocked by heavy objects?	Install drain line properly.	
	If the drain line is over 9.84 ft(3M). long or placed over 1 ft(30cm). above installation surface?	Install separate drainage pump by requesting A/S.	
When ice is not being created.	Water is being supplied to the product but ice is not being created?	Re-supply tapwater, pull power plug out, and then insert it again.	See usage. (Page 16)
	Is the water level at usable level after the initial power application?	Wait until the water in the ambient tank becomes above usable levels (about 70%).	
	Is the ICE FULL lamp turned on?	Request A/S.	
	Is ice frozen when tap water is supplied?		

12. Memo